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PATENT
Customer No. 22,852
Attorney Docket No. 2376.0006-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No.: RE 38,636)
Inventors: Michel Gondouin)
Issue Date.: October 26, 2004)
For: DOWNHOLE EQUIPMENT, TOOLS)
AND ASSEMBLY PROCEDURES)
FOR THE DRILLING, TIE-IN AND)
COMPLETION OF VERTICAL)
CASED OIL WELLS CONNECTED)
TO LINER-EQUIPPED MULTIPLE)
DRAINHOLES)

#14
8

Certificate
NOV 30 2004
of Correction

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR CERTIFICATE OF CORRECTION

Pursuant to 35 U.S.C. § 254, and 37 C.F.R. § 1.322, this is a request for a Certificate of Correction in the above-identified patent. The mistakes identified in the appended Form occurred through the fault of the Patent Office, as clearly disclosed by the records of the application which matured into this patent.

Two (2) copies of PTO Form 1050 are appended. The complete Certificate of Correction involves one (1) page. Issuance of the Certificate of Correction containing the correction is earnestly requested.

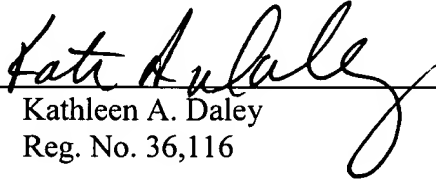
DEC 03 2004

Please charge any required fees not included herewith to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 23, 2004

By: 
Kathleen A. Daley
Reg. No. 36,116

808050_1

DEC 03 2004

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. RE38,636 1/
DATED: October 26, 2004
INVENTORS: Michel Gondouin

It is hereby certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (54), in the title, line 4, "VERTICAL OIL" should read --VERTICAL CASED OIL--.

On the title page, item (57), in the abstract, line 3, "GOR with WOR." should read --GOR and WOR.--.

In claim 8, column 23, line 63, "least portion" should read --least a portion--.

In claim 32, column 25, line 33, "under reamed" should read --under-reamed--.

In claim 68, column 27, line 36, "is generally" should read --is a generally--.

MAILING ADDRESS OF SENDER

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Patent No. RE38,636

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. RE38,636 *E*
DATED: October 26, 2004
INVENTORS: Michel Gondouin

It is hereby certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (54), in the title, line 4, "VERTICAL OIL" should read --VERTICAL CASED OIL--.

On the title page, item (57), in the abstract, line 3, "GOR with WOR." should read --GOR and WOR.--.

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(19) **United States**
 (12) **Reissued Patent**
Gondouin

(10) **Patent Number:** **US RE38,636 E**
 (45) **Date of Reissued Patent:** ***Oct. 26, 2004**

(54) **DOWNHOLE EQUIPMENT, TOOLS AND ASSEMBLY PROCEDURES FOR THE DRILLING, TIE-IN AND COMPLETION OF VERTICAL OIL WELLS CONNECTED TO LINER-EQUIPPED MULTIPLE DRAINHOLES**

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(List continued on next page.)

(75) **Inventor:** **Michel Gondouin, San Rafael, CA (US)**

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(*) **Notice:** This patent is subject to a terminal disclaimer.

Primary Examiner—Hoang Dang

(57) **ABSTRACT**

Single horizontal wells drilled through heterogeneous reservoirs are capable of greater oil productivity than vertical wells, often with lower produced GOR with WOR. Multiple drainholes tied-in to a vertical cased well are even more beneficial. Completion of such drainholes in many sandy reservoirs must use cemented liners. Well configurations comprising multiple drainholes liners, each of them tied-in to a vertical casing by pressure-tight connections require novel technologies making use of some novel downhole equipment, tools and procedures for drilling, tie-in and completion of such wells. These may be for newly-drilled wells or may be obtained by re-entry into an existing vertical cased well. Specific equipment, including novel casing joints, whipstocks, intermediate liners and tubing completion assembly components applicable to new wells are described herein. Equipment comprising novel casing inserts and patches applicable to re-entry wells, and the corresponding tubing completion assembly components for a variety of well exploitation modes are also described, together with the required tools and procedures. The liners of the drainholes are such that known well logging and cleaning tools may be used throughout the well's life. The various tubing completion assemblies can all be run-in and installed in a single trip. They allow either commingled flow from all drainholes or selective injection into some drainholes while others are under production. They are adapted to a variety of reservoir pressure conditions and of oil types, including heavy oil produced by sequential "huff and puff" steam injection.

(21) **Appl. No.:** **09/824,738**

(22) **Filed:** **Apr. 4, 2001**

Related U.S. Patent Documents

Reissue of:

(64) **Patent No.:** **5,462,120**
Issued: **Oct. 31, 1995**
Appl. No.: **07/814,585**
Filed: **Dec. 30, 1991**

U.S. Applications:

(63) Continuation of application No. 08/861,457, filed on May 22, 1997, now Pat. No. Re. 37,867.

(51) **Int. Cl.⁷** **E21B 7/04; E21B 43/00**

(52) **U.S. Cl.** **166/380; 166/50; 166/117.6; 166/242.1; 175/61**

(58) **Field of Search** **166/313, 117.5, 166/117.6, 242.1, 50, 380, 369; 175/61, 77-82**

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71 Claims, 31 Drawing Sheets

